

WHAT IS CLAIMED IS:

1. A translation supporting apparatus comprising:
 - an interface unit which issues input and output instructions regarding an input of a translation target document, an output of a translated document, and a translation control;
 - 5 a machine translating apparatus which translates a document in a certain language into a document in another language;
 - an original/translation database in which original/translation information has been accumulated;
 - 10 a translation memory device which supports work for translating a document in a certain language into a document in another language by searching said original/translation database; and
 - 15 a data compatible processing unit which makes the original/translation information translated by said machine translating apparatus and the original/translation information translated by said translation memory device common and enables those information to be mutually fetched as original/translation information.

2. An apparatus according to claim 1, wherein
 - 20 said original/translation database has: an original/translation sentence database which is used by said translation memory device; an analyzed original/translation sentence database in which original/translation sentences have been analyzed by a morpheme analysis or a syntax analysis; and a dictionary in which original/translation words and original/translation patterns which are used by said machine translating apparatus have been registered,
 - 25 and said data compatible processing unit adds the

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original/translation sentences obtained by said machine translating apparatus or sentences obtained by correcting the original/translation sentences obtained by said translation memory device into said original/translation sentence database, adds the original/translation sentences obtained by said translation memory device or original/translation sentences translated by the user into said original/translation sentence database, adds analyzed original/translation sentences obtained by analyzing the original/translation sentences into said analyzed original/translation sentence database, further extracts the original/translation words or original/translation patterns from said analyzed original/translation sentences, and adds them into a dictionary of said machine translating apparatus.

3. An apparatus according to claim 2, wherein said data compatible processing unit further adds confidence degrees to original/translation word candidates or original/translation pattern candidates which were automatically extracted from said analyzed original/translation sentences and allows said candidates with the confidence degrees to be displayed.

4. An apparatus according to claim 1, further comprising a similar sentence translating unit constructed in a manner such that when said translation memory device is requested to translate, similar sentences are searched by searching said original/translation database on the basis of an input sentence, the input sentence is sent to said machine translating apparatus, an analysis result is obtained, a search

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result of said original/translation database is compared with the analysis result obtained from said machine translating apparatus, different input words are sent to said machine translating apparatus, original/translation words are obtained, and the different words of original/translation similar sentences are replaced with the obtained original/translation words.

5. An apparatus according to claim 1, further comprising a structure searching unit which sends a search input sentence of said translation memory device to said machine translating apparatus via said data compatible processing unit, obtains an analysis result, searches original/translation sentences having similar structures from said analyzed original/translation sentence database by using said analysis result as a search key, and allows them to be displayed.

6. An apparatus according to claim 1, further comprising an expression searching unit which searches examples of the actual use of a designated word and displays them.

7. An apparatus according to claim 1, further comprising a confidence degree setting unit constructed in a manner such that when a sentence is simultaneously translated by said translation memory device and said machine translating apparatus, with respect to an output display of translation candidates added with marks indicative of confidence degrees from said translation memory device, marks indicative of confidence degrees are added to translated sentence candidates outputted from said machine translating apparatus, and said candidates

with the marks are displayed.

8. An apparatus according to claim 1, further comprising an abstract forming unit which displays an outline of the translation target document before translation.

5 9. An apparatus according to claim 1, further comprising an outline calculating unit which calculates document information including the number of characters, the number of words, expressions, and the like of the translation target document and allows them to be displayed in order of appearance frequencies.

10 10. An apparatus according to claim 1, wherein said interface unit comprises: an original sentence display unit which displays a translation target sentence; a system output display unit which displays a translated sentence; and a translation editing unit which issues an editing instruction.

11. A translation supporting method comprising the steps of:
20 translating a document in a certain language into a document in another language by a machine translating apparatus;
translating a document in a certain language into a document in another language by a translation memory device by searching an original/translation database in which original/translation information has been accumulated; and
25 making the original/translation information translated by said machine translating apparatus and the original/translation

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information translated by said translation memory device common so that data is compatible and mutually fetching those information as original/translation information.

- 5 12. A method according to claim 11, wherein
 said original/translation database has: an
original/translation sentence database which is used by said translation
memory device; an analyzed original/translation sentence database in
which original/translation sentences have been analyzed by a morpheme
analysis, a syntax analysis, or the like; and a dictionary in which
original/translation words and original/translation patterns which are
used by said machine translating apparatus have been registered,
 said original/translation sentences obtained by said machine
translating apparatus or sentences obtained by correcting the
original/translation sentences obtained by said translation memory
device are converted into compatible data and added into said
original/translation sentence database, the original/translation sentences
obtained by said translation memory device or original/translation
sentences translated by the user are added into said original/translation
sentence database, analyzed original/translation sentences obtained by
analyzing the original/translation sentences are added into said analyzed
original/translation sentence database, and
 further, the original/translation words or original/translation
patterns are extracted from said analyzed original/translation sentences
and added into a dictionary of said machine translating apparatus.
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13. A method according to claim 12, wherein confidence degrees

are further added to original/translation word candidates or original/translation pattern candidates which were automatically extracted from said analyzed original/translation sentences and said candidates with the confidence degrees are displayed.

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14. A method according to claim 11, wherein there is further executed a similar sentence translation such that when said translation memory device is requested to translate, similar sentences are searched by searching said original/translation database on the basis of an input sentence, the input sentence is sent to said machine translating apparatus, an analysis result is obtained, a search result of said original/translation database is compared with an analysis result obtained from said machine translating apparatus, different input words are sent to said machine translating apparatus, the original/translation words are obtained, and the different words of original/translation similar sentences are replaced with the obtained original/translation words.

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15. A method according to claim 11, wherein the search input sentence of said translation memory device is further sent to said machine translating apparatus via a data compatible processing unit, an analysis result is obtained, original/translation sentences having similar structures are searched from said analyzed original/translation sentence database by using said analysis result as a search key, and they are displayed.

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16. A method according to claim 11, wherein examples of the actual use of a designated word are searched and displayed.

17. A method according to claim 11, wherein when a sentence is simultaneously translated by said translation memory device and said machine translating apparatus, with respect to an output display of translation candidates added with marks indicative of confidence degrees from said translation memory device, marks indicative of confidence degrees are further added to the translated sentence candidates outputted from said machine translating apparatus and said candidates with the marks are displayed.
18. A method according to claim 11, wherein an abstract showing an outline of the translation target document is further displayed before translation.
19. A method according to claim 11, wherein document information including the number of characters, the number of words, and expressions of a translation target document is further calculated and they are displayed in order of appearance frequencies.
20. A method according to claim 11, a translation target sentence is displayed on an original sentence display unit, the translated sentence is displayed on a system output display unit, and an editing instruction is issued from a translation editing unit.
21. A translation supporting program which allows a computer to execute the steps of:
translating a document in a certain language into a document

in another language by a machine translating apparatus;

translating a document in a certain language into a document in another language by a translation memory device by searching an original/translation database in which original/translation information has been accumulated; and

5 making the original/translation information translated by said machine translating apparatus and the original/translation information translated by said translation memory device common so that data is compatible and mutually fetching said information as original/translation information.

22. A program according to claim 21, wherein said program allows the computer to execute the steps of:

10 converting original/translation sentences obtained by said machine translating apparatus into compatible data and adding them into an original/translation sentence database;

15 adding original/translation sentences obtained by said translation memory device or original/translation sentences translated by the user into said original/translation sentence database and adding analyzed original/translation sentences obtained by analyzing the original/translation sentences into an analyzed original/translation sentence database, and

20 extracting original/translation words or original/translation patterns from said analyzed original/translation sentences and adding them into a dictionary of said machine translating apparatus.

25 23. A program according to claim 22, wherein said program

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allows the computer to further execute the step of: adding confidence degrees to original/translation word candidates or original/translation pattern candidates which were automatically extracted from said analyzed original/translation sentences and displaying said candidates with the confidence degrees.

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24. A program according to claim 21, wherein said program allows the computer to further execute the steps of:

when said translation memory device is requested to translate, searching similar sentences by searching said original/translation database on the basis of an input sentence;

sending the input sentence to said machine translating apparatus and obtaining an analysis result;

comparing a search result of said original/translation database with an analysis result obtained from said machine translating apparatus;

sending different input words to said machine translating apparatus and obtaining original/translation words; and

replacing the different words of original/translation similar sentences with the obtained original/translation words.

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25. A program according to claim 21, wherein said program allows the computer to further execute the steps of:

converting a search input sentence of said translation memory device into compatible data and sending said data to said machine translating apparatus;

obtaining an analysis result; and

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searching original/translation sentences having similar structures from an analyzed original/translation sentence database by using said analysis result as a search key, and displaying them.

5 26. A program according to claim 21, wherein said program allows the computer to further execute the step of searching examples of the actual use of a designated word and displaying them.

10 27. A program according to claim 21, wherein said program allows the computer to further execute the step of:

15 when a sentence is simultaneously translated by said translation memory device and said machine translating apparatus, with respect to an output display of translation candidates added with marks indicative of confidence degrees from said translation memory device, adding marks indicative of confidence degrees to the translated sentence candidates outputted from said machine translating apparatus and displaying said candidates with the marks.

20 28. A program according to claim 21, wherein said program allows the computer to further execute the step of displaying an abstract showing an outline of a translation target document before translation.

25 29. A program according to claim 21, wherein said program allows the computer to further execute the step of calculating document information including the number of characters, the number of words, and expressions of a translation target document and displaying them in order of appearance frequencies.

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5 30. A program according to claim 21, wherein in an interface unit, a translation target sentence is displayed on an original sentence display unit, a translated sentence is displayed on a system output display unit, and an editing instruction is issued from a translation editing unit.

10 31. A computer-readable recording medium on which a translation supporting program has been recorded, wherein said program allows a computer to execute the steps of:

15 translating a document in a certain language into a document in another language by a machine translating apparatus;

20 translating a document in a certain language into a document in another language by a translation memory device by searching an original/translation database in which original/translation information has been accumulated; and

25 making original/translation information translated by said machine translating apparatus and original/translation information translated by said translation memory device common so that data is compatible and mutually fetching said information as original/translation information.

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